CLAIMS:-

1. A method of routing traffic in a packet network in which label switched paths are installed, the method comprising defining and installing partial routes each comprising two or more paths such that an end-to-end route across the network can be defined as the concatenation of two partial routes.

2. A method as claimed in claim 1, wherein said network is partitioned into a plurality of autonomous system regions.

3. A method as claimed in claim 2, wherein the partial routes are selected based on congestion measurements.

4. A method as claimed in claim 3, wherein said partial routes comprise cross connections in label switching nodes.

5. A method as claimed in claim 5, wherein said paths and partial routes are installed via a common open policy service protocol.

6. A method of operating a multi-protocol label switched packet network, the method comprising partitioning the network by using constraint based routing to install label switched paths and corresponding labels, and multiplexing sessions by applying cross connections at a higher label level.

7. A method as claimed in claim 6, wherein a label stack installed at an edge of the network acts as a source route such that pre-installed cross connections achieve dynamic multiplexing into the label switched paths.

8. A method as claimed in claim 7, wherein the partial routes are selected based on congestion measurements.

9. A method as claimed in claim 8, wherein said partial routes comprise cross connections in label switching nodes.

10. A method as claimed in claim 9, wherein said paths and partial routes are installed via a common open policy service protocol.

11. A method as claimed in claim 7, and embodied as software in machine readable form on a storage medium.

12. A method of signalling to provide routing in a multi-protocol label switched packet network, the method comprising; sending a path message from an end point to a first virtual router, determining a path from the end point to the virtual router, forwarding an identity of said path to a second virtual router, determining a routing vector across the network, and returning information identifying said routing vector to the first virtual router.

13. A method of signalling to establish an end to end path in a multi-protocol label switched packet network, the method comprising sending path reservation requests as tunnelled resource reservation protocol (RSVP) messages between first and second virtual routers.

14. A method as claimed in claim 13, wherein said tunnelled resource reservation protocol messages are encapsulated.

15. A method as claimed in claim 14, wherein path information is carried within a RSVP policy element in said message.

16. A method as claimed in claim 15, wherein a said path is established as first and second half paths.

17. A label switched communications packet network in which label switched paths are installed, the network including path selection means for defining and installing partial routes each comprising two or more paths such that an end-to-end route across the network can be defined as the concatenation of two partial routes.

18. A packet network as claimed in claim 17, wherein said network is partitioned into a plurality of autonomous system regions.

19. A packet network as claimed in claim 18, wherein the partial routes are selected based on congestion measurements.

20. A packet network as claimed in claim 19, wherein said partial routes comprise cross connections in label switching nodes.

21. A packet network as claimed in claim 20, wherein said paths and partial routes are installed via a common open policy service protocol.

22. A packet network as claimed in claim 21, and incorporating signalling means for sending path reservation requests as tunnelled resource reservation protocol (RSVP) messages between first and second virtual routers.

23. A virtual router embodied as software in machine readable form on a storage medium and arranged to route traffic in a packet network in which label switched paths are installed, the software being arranged to define and install partial routes each comprising two or more paths such that an end to end route across the network can be defined as the concatenation of two partial routes.